FIVE YEAR REVIEW REPORT

CONRAIL RAIL YARD SITE
ELKHART, INDIANA

Pursuant to CERCLA

Prepared by:
U.S. Environmental Protection Agency
Region 5
Chicago, Illinois

William E. Muno, Division Director
Superfund Division

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Date

I. INTRODUCTION

A. Authority and Purpose

Section 121© of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by SARA and Section 300.430(f) (4) (ii) of the National Contingency Plan (NCP), require that periodic (no less often than five years) reviews are to be conducted for sites where hazardous substances, pollutants or contaminants remain at the site above levels that will not allow for unlimited use or unrestricted exposure following implementation of remedial actions for the site. The purpose of a statutory five-year review is to evaluate whether the remedial action remains protective of human health and the environment. This review focuses on the protectiveness of the Conrail Rail Yard Superfund Site, located in Elkhart, Indiana (the Site). This review will be placed in the Site files and local repository for the Site.

The United States Environmental Protection Agency (EPA) has established a three-tier (with a sub-tier for Tier I, as Ia) approach to conducting Five-Year Reviews, the most basic of which provides a minimum protectiveness evaluation for sites with on-going response actions at the site (Level Ia review). U.S. EPA contemplates that a Level I review will be appropriate in all but relatively few cases where site-specific considerations suggest otherwise. The second and third levels (Level II and Level III) of review are intended to provide the flexibility to respond to varying site-specific considerations, employing further analysis. Site specific considerations, including the nature of the response action, the status of the on-site response activities, and the proximity to populated areas and sensitive environmental areas determine the level of review for a given site. The Type Ia review conducted for this site is applicable to a site at which response is ongoing.

B. Site History

The Conrail Rail Yard Site is located adjacent to and within the southwestern city limits of Elkhart, Indiana. The Site occupies 675 acres, and the study area, which includes the rail yard, encompasses roughly 2500 acres. The rail yard is an electronically controlled hump yard which serves as a classification distribution yard for freight cars. The rail yard began operations in 1956 as part of the New York Central Railroad, and continued operations as a subsidiary of the Penn Central Transportation Company until 1976. From 1961 to 1968, there were a number of citizen complaints with regard to oil discharges from local authorities. Between 1966 and 1969 a tank car containing carbon tetrachloride collided with another car during humping operations at the rail yard causing the release of approximately 16,000 gallons of carbon tetrachloride. In 1976, operations at the rail yard were transferred to the Consolidated Rail Corporation (Conrail). From 1976 to the present, spills and releases of oil, diesel fuel, hydrochloric acid, caustic soda, and various petroleum-related substances have occurred there. Reports also indicate that a track cleaning substance and engine degreasers were used and disposed of at the rail yard. In 1999, Norfolk Southern Corporation took over operation of the rail yard.

The St. Joseph River flows westward and is located a little over a mile north of the Site. Baugo Bay flows north into the St. Joseph River, and is located immediately to the west of the study area. Crawford Ditch originates at the Site and flows intermittently to the St. Joseph River. There are several light industries surrounding the study area to the north and northwest of the rail yard, as well as the numerous light industries surrounding the study area to the east and south. Approximately 3500 people live within the study area, within about a mile and a half of the Site. Prior to remedial activities, about 3000 people used private residential wells for their water supply.

Site activities resulted in contamination of the Site and surrounding areas in four ways: the ground water was contaminated with carbon tetrachloride and trichloroethylene (TCE) from the tank car spill, other spills, and degreasing operations, resulting in two distinct contaminant plumes, one of which contained carbon tetrachloride and TCE levels over 5000 parts per million (ppm) each; the St. Joseph River was contaminated by the ground water flowing into it; some residential basements were contaminated with vapors emanating from the contaminated ground water; and rail yard soils were contaminated by the various spills that occurred on the rail yard.

Due to Conrail's unwillingness to perform a complete investigation, EPA conducted the Remedial Investigations and the Feasibility Study (RI/FS) for the Site. EPA issued an interim Record of Decision in June 1991 and a final Record of Decision for the Site on September 9, 1994. After negotiations for the interim Remedial Design(RD)/Remedial Action (RA) Consent Decree broke down, EPA issued a Unilateral Administrative Order (UAO) to Conrail and Penn Central on July 7, 1992 to perform hookups of residences and businesses to an alternate water supply within the boundaries of the two contaminant plumes. EPA issued a second UAO on May 15, 1995 to Conrail and Penn Central to hook up the remainder of homes and businesses within the study area to the alternate water supply. On August 2, 1996, the United States lodged a Partial Consent Decree for recovery of funds expended on the RI/FS, and on November 10, 1997, an RD/RA Consent Decree with Conrail and Penn Central was entered, encompassing the remainder of work to be performed under the final Record of Decision (ROD).

II. DISCUSSION

A. Remedial Objectives

The remedial action goals of the RODs for the Site were to minimize risks to public health and the environment from ingestion and inhalation of volatile organic compounds (VOCs) in the ground water and the St. Joseph River, and to minimize the inhalation risks to on-site workers from VOCs in contaminated soils on the rail yard. The remedy selected to meet these objectives, as outlined in the two RODs included:

- Hooking up all residences in the study area to an alternate water supply;
- Pumping and treating ground water within the two contaminant plumes to the Maximum Contaminant Levels (MCLs) for several VOCs;

- ♦ Monitoring and, if necessary, remediation of VOC vapors in basements; and
- ♦ Remediation of contaminated soils on the rail yard via soil vapor extraction and air sparging.

B. Remedial Construction

Remedial Construction Activities

Conrail commenced remedial construction on the alternate water supply in August 1994 and completed construction in May 1997. Collectively, 1150 homes and businesses were hooked up to the alternate water supply. Work is still under way on the other aspects of the ROD for the Site. The current status of each element of the final ROD is as follows:

- Conrail and Penn Central have submitted a petition for a Technical Impracticability (TI) Waiver for the dissolved portion of the contaminant plumes at the Site. EPA is currently reviewing said petition. If warranted, the ground water remedy will be changed, via a ROD amendment;

- Conrail and Penn Central have monitored for vapors in a number of basements within the study area and have discovered 10 homes to date that may need to be "remediated". Remediation is proceeding on one home, and the other homes will be remediated, as needed, pending confirmatory sampling results;

- An ecological study was performed on the St. Joseph River. The results indicated no adverse impacts to aquatic life as a result of Site-related contamination; and

- Sampling was conducted on rail yard soils. The sampling indicated that no action was needed on shallow soils since no samples exceeded the applicable cleanup levels. Air sparging is pending final action on the TI Waiver application and the resultant ground water remedy.

The work remaining at the Site is scheduled to be completed by the end of 2001.

III. RECOMMENDATIONS

I recommend that the remaining work listed above be completed, which should result in the completion of all remedial construction activities by December 31, 2001.

IV. STATEMENT ON PROTECTIVENESS

I certify that the remedy selected for this site remains protective of human health and the environment.

V. NEXT FIVE-YEAR REVIEW

The next five-year review will be conducted by August 31, 2004, which is ten years from the date that the remedial action started.